



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-----------------------|------------------|
| 09/904,239 | 07/12/2001 | PonnuSamy Palanisamy | INTL-0585-US (P11594) | 2114 |

7590 04/09/2003

Timothy N. Trop
TROP, PRUNER & HU, P.C.
8554 KATY FWY, STE. 100
HOUSTON, TX 77024-1805

[REDACTED] EXAMINER

PHINNEY, JASON R

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2879

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------------------------|---|
| Office Action Summary | Application No. 09/904,239 | Applicant(s) PALANISAMY, PONNUSAMY |
| | Examiner Jason Phinney | Art Unit 2879 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 July 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 19-25 is/are allowed.
- 6) Claim(s) 1-3 and 5-18 is/are rejected.
- 7) Claim(s) 4 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 July 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "18" has not been defined in the Specification and appears to have been used to designate both an interconnect in Figure 1 and a light emitting display element in Figure 2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 10, 11, 14 and 16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 6,492,251 to Haba.

Regarding Claim 1, Haba discloses a method comprising coupling a first and second surface (Figure 15, #'s 572 and 596) of an electronic device and injecting an encapsulant

(Column 18, Lines 42-47) between the first and second surfaces through one of the surfaces (#584).

Regarding Claim 2, Haba further discloses that the method should comprise the step of forming a hole (#584) through one of the surfaces and injecting encapsulant through the hole (Column 18, Lines 42-47).

Regarding Claim 10, Haba further discloses that the method should comprise the step of injecting encapsulant into the region between a pair of spaced plates (Column 18, Lines 42-47).

Regarding Claim 11, Haba discloses an electronic device comprising a first surface (Figure 15, #596), a second surface (#572) spaced from the first surface, wherein the second surface includes at least one encapsulation injection port (#584) extending through the surface and encapsulation between the first and second surfaces (Column 18, Lines 42-47).

Regarding Claim 14, Haba further discloses that the surfaces should be surface mounted to one another (See Figure 15).

Regarding Claim 16, Haba further discloses that there should be a plurality of encapsulation injection ports extending through the first surface (Column 18, Lines 51-52).

4. Claims 1-3, 5-9, 11 and 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 4,713,579 to Miura.

Regarding Claim 1, Miura discloses a method comprising coupling a first and second surface (Figure 5, #'s 1 and 2) of an electronic device and injecting an encapsulant (Column 2, Lines 18-24) between the first and second surfaces through one of the surfaces (through holes #'s 109 and 200).

Regarding Claim 2, Miura further discloses that the method should comprise the step of forming a hole (#'s 109 and 200) through one of the surfaces and injecting encapsulant through the hole (Column 2, Lines 18-24).

Regarding Claim 3, Miura further discloses that the method should comprise the step of forming a centrally located hole and forming a plurality of radially displaced holes arranged at a substantially uniform radius from the centrally located hole (see Figure 3, #200).

Regarding Claim 5, Miura further discloses that injecting an encapsulant should include causing an encapsulant front to extend outwardly from the center of a region to be encapsulated between the first and second surfaces (See Figure 5, #107).

Regarding Claim 6, Miura further discloses that the method should include injecting encapsulant through a central hole through one of the surfaces (See Figure 5, #107).

Regarding Claim 7, Miura further discloses that the method should include terminating the injection of encapsulant through the central hole and injecting encapsulant through a plurality of holes substantially uniformly radially displaced with respect to the central hole (see Figure 3, #200 and Figure 5, #107).

Regarding Claim 8, Miura further discloses that the method should include stopping the injection of the encapsulant through radially displaced holes and initiating the injection of encapsulant through a second set of holes radially displaced with respect to the radially displaced holes (see Figure 3, #200 and Figure 5, #107).

Regarding Claim 9, Miura further discloses that the method should include forming an electronic display (see Figure 3).

Regarding Claim 11, Miura discloses an electronic device comprising a first surface (Figure 5, #1), a second surface (#2) spaced from the first surface, wherein the second surface includes at least one encapsulation injection port (#200) extending through the surface and encapsulation between the first and second surfaces (Column 2, Lines 18-24).

Regarding Claim 16, Miura further discloses that there should be a plurality of encapsulation injection ports extending through the first surface (see Figure 3, #200).

Regarding Claim 17, Miura further discloses that there should be a centrally located injection port, and a first array of substantially uniformly radially displaced injection ports positioned radially outwardly of the centrally located injection port (see Figure 3, #200).

Regarding Claim 18, Miura further discloses that there should be a second array of substantially uniformly displaced injection ports positioned radially outwardly with respect to the first array (see Figure 3, #200).

5. Claims 11, 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,427,858 to Nakamura.

Regarding Claim 11, Nakamura discloses an electronic device comprising a first surface (Figure 4, #11), a second surface (#23) spaced from the first surface, wherein the second surface includes at least one encapsulation injection port (#24) extending through the surface and encapsulation between the first and second surfaces (#21).

Regarding Claim 12, Nakamura further discloses that the device is a display (Abstract, Lines 1-3).

Regarding Claim 13 Nakamura further discloses that one of the surfaces should be a glass panel (Column 23, Lines 65-66).

Regarding Claim 15 Nakamura further discloses that the device should be an organic light emitting display device (Abstract, Lines 1-3).

Allowable Subject Matter

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record and relied upon fails to show or suggest a method including the step of injecting encapsulant through a centrally located hole until the encapsulant reaches the radially displaced holes and thereafter stopping the injection of encapsulant through the centrally located hole and injecting encapsulant through the radially displaced holes. Encapsulant injected in this manner prevents the formation of air bubbles.

7. Claims 19-25 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record and relied upon fails to show or suggest the method of claim 19 comprising injecting encapsulant into an electronic device at a first location and when the encapsulant reaches a second location spaced from the first location, injecting encapsulant at a location proximate to the second location. Injecting encapsulant in this method prevents the formation of air bubbles.

Claims 20-25 further limit claim 19 upon which they depend and as such they are also allowable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Phinney whose telephone number is (703) 305-3999. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JP
April 4, 2003

Ashtu
ASHOK PATEL
PRIMARY EXAMINER